

REMARKS

Claims 1-32 stand rejected. Reconsideration of the application is respectfully requested.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-32 under 35 U.S.C. § 103(a) as being unpatentable over Powers et al. (U.S. Pat. No. 6,460,103) in view of Kim (U.S. Pat. No. 5,181,029) and Comer (U.S. Pat. No. 6,081,856). With regard to the independent claims, the Examiner stated:

Regarding claims 1, 6, 15 and 23, Powers teaches a keyboard (14) including features of the keyboard for rapidly responding to routine software requests. See col. 5, lines 9-11. Powers teaches at least one application launch Key (68) actuation of which causes a high level interrupt for opening or launching a specific user-configurable software applications. Powers also teaches that each of the keys carries an icon and further teaches rapid response keys (82, 84, 86, 88), which are additional special keys with specific purposes responding to a software request according to their assigned functions. See col. 6, lines 12-26, Fig. 3A and Fig. 4. In addition, Powers teaches the keyboard in connection to the computer console, a rapid Internet access array (70) a CPU (10, and a monitor (12). See col. 5, lines 55-57, Fig. 2 and Fig. 3A. However, Powers does not teach a keyboard including a display configurable to display a plurality of icons. Kim on the other hand teaches a keyboard (20) including an LCD display (70) on which icons can be displayed. See Fig. 1 and col. 3, lines 56-63.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Power's keyboard to adapt Kim's Keyboard-based LCD (70). One would have been motivated in view of the suggestion in Kim that the LCD (70) as configured on keyboard (70) of Fig. 1 is the same as the desired Keyboard-mounted display. The use of LCD (70) on a keyboard (20) helps electronic keyboard template system as taught by Kim.

In addition, Kim teaches the LCD screen (70) extending above the function keys (50). Further, Kim teaches and an area

on the LCD screen (70) designated for each of the function keys (50) so that each of the function area is proximate (directly above) the function key (50), which it corresponds to. Moreover, Kim discloses a program selector (80) used to select the desired software program to be used in conjunction with the template. See col. 3, lines 40-66.

Powers has been described above. However, Powers does not teach transmitting the icon from the monitor to the keyboard. Comer on the other hand teaches an adaptor (10) that is emulating the operation of keyboard and of the video monitor; the adapter may transmit display data and receive keyboard data. See col. 12, lines 9-20 and Fig. 1.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was based to modify Powers' keyboard to adapt Comer's use of adaptor (10). One would have been motivated in view of Comer that the adaptor (10) can be equivalently used to achieve the desired mechanism by which transmission of the icon from the monitor to the keyboard takes place. The use of adapter helps communicate keyboard data as taught by Comer.

Applicants respectfully traverse this rejection. The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination or modification. *See ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination or modification includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *See Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other

than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

The present application is directed to a method and apparatus for displaying a plurality of icons on a user configurable keyboard to allow users to launch applications and uniform resource locators (URLs) that are displayed as icons on the keyboard. The keyboard includes a display screen, such as a liquid crystal display (LCD), for displaying user configurable icons proximate to a set of launch keys. Page 12, line 22 - page 13, line 2. The display screen on the keyboard may comprise any suitable display medium. Page 13, lines 2-3. The launch keys are user configurable to allow a user to program the desired application program invocation or URL in the computer system memory circuitry. Page 13, lines 3-6. Accordingly, independent claims 1 and 6 each recite a user-configurable keyboard comprising “a display configurable to display a plurality of icons.” Independent claims 15 and 23 each recite “selecting an icon from a system monitor,” “transmitting the icon from the monitor to a keyboard,” and “displaying the icon on the keyboard.”

In contrast, the Powers reference discloses a keyboard configured with dedicated keys that correspond to specific user feedback for a query from software. Col. 2, lines 10-15. The dedicated keys correspond to responses to routine software requests that may require a “yes,” “no,” “cancel,” or “close-and-save” response from the user. Col. 2, lines 18-22; col. 5, lines 9-11. Each of the dedicated keys carries indicia that is molded or printed onto the key, indicating the dedicated and sole function of that key. Col. 6, lines 12-15. Accordingly, the

Powers reference discloses a keyboard having a plurality of preset and preconfigured keys that may be used to respond to routine software queries.

As stated by the Examiner, the Powers reference does not disclose or suggest a keyboard comprising “a display configurable to display a plurality of icons,” as recited in claims 1-6. To provide the missing element in an effort to support a *prima facie* case of obviousness, the Examiner cited the Kim reference as disclosing “a keyboard (20) including a display configurable to display a plurality of icons.” Official Action, page 2. The Kim reference discloses a template 10 having an LCD screen 70 that allows letters, words or graphics (e.g. icons) to be displayed within each of a group of designated 50-pixel by 50-pixel areas. Col. 3, lines 21-29 and 56-64. Each designated area may correspond to function keys 50 proximate to each designated area. Col. 3, lines 44-48. Accordingly, the LCD screen 70 may list various functions that may be invoked, and further may associate each of the functions with a key icon. *See* col. 3, lines 60-63.

However, in sharp contrast to the claimed invention, the LCD screen 70 of the Kim reference is clearly *not* on the keyboard. Instead, the LCD screen 70 is provided on an electronic keyboard template 10, which is merely overlaid onto a computer keyboard 20. Col. 3, lines 21-29. Accordingly, the Kim reference does not disclose a *keyboard* comprising a display configurable to display a plurality of icons, as recited in claims 1 and 6. At best, Kim discloses providing designations for a portion of the keyboard (e.g., function keys) on a LCD screen display 70 on a component that is *separate from* the keyboard.

Clearly, the Kim reference does not disclose a keyboard having an LCD screen. Further, there is nothing in the Kim reference that would suggest modifying a *keyboard* to include a display configuration to display a plurality of icons. In fact, the Kim reference essentially teaches away from the claimed invention. That is to say that rather than modifying the keyboard to include a display, the Kim reference teaches modifying a template display to include iconic designations for a portion of a separate keyboard. In fact, it appears that the Kim reference actually teaches that having a *separate* template is an advantage of Kim's alleged invention. *See* col. 3, lines 25-33. Teaching away from the art is a *per se* demonstration of lack of *prima facie* obviousness. *In re Dow Chemical Co.*, 837 F.2d 469, 5 U.S.P.Q.2d 1529 (Fed. Cir. 1988). Accordingly, there is simply no suggestion in the Kim reference to modify a keyboard to include a display configurable to display a plurality of icons.

In view of the remarks set forth above, Applicants respectfully submit that neither of the cited references, either alone or in combination, discloses or suggests the elements set forth in claims 1 and 6, much less provides any suggestion to combine the disparate teachings to render the claimed subject matter obvious. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claims 1 and 6, as well as those claims dependent thereon.

Independent claims 15 and 23 recite "selecting an icon from a system monitor," "transmitting the icon from the monitor to a keyboard," and "displaying the icon on a keyboard." As stated by the Examiner, the Powers reference does not disclose these recited elements. The Examiner cited the Comer reference as disclosing an adapter 10 that is

emulating the operation of a keyboard and a video monitor, wherein the adapter may transmit display data and receive keyboard data. *See* Office Action, page 3. Comer discloses an apparatus and method for emulating a peripheral device of a computer that eliminates the need for the emulated device. Col. 4, lines 63-67. For example, in the case of keyboard data, a reconfiguration could direct the computer to look for keyboard data from an adapter, rather than from the computer's keyboard port. Col. 5, lines 41-63. Similarly, display data, for example, could be redirected to an external device, rather than a video monitor port. Col. 5, lines 15-22.

Even if the data disclosed in the Comer reference could be correlated with the icons recited in the present claims, it is clear that the Comer reference only discloses the *adapter* 10 transmitting and receiving the data. *See* Fig. 1 and col. 12, lines 9-19. In contrast, independent claims 15 and 23 recite transmitting an icon *from the monitor to a keyboard*. Indeed, while the Comer reference discloses a display 50 and a keyboard 52, it is clear from the specification that the Comer reference does not disclose or suggest transmitting an object from the display 50 to the keyboard 52. In fact, the Comer reference does not discuss any transmission *to* a keyboard. Accordingly, the Comer reference does not even disclose transmitting an icon to a keyboard, and thus, cannot possibly disclose “selecting an icon from a system monitor,” “transmitting the icon from the monitor to a keyboard,” and then “displaying the icon on a keyboard,” as recited in claims 15 and 23.

Neither of the references either alone or in combination discloses each of the elements recited in independent claims 15 and 23, much less provide any motivation or suggestion to combine these disparate teachings in the manner recited in the present claims. Accordingly,

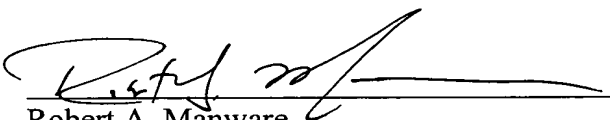
Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claims 15 and 23, as well as the claims dependent thereon.

Conclusion

In view of the remarks set forth above, Applicants respectfully request allowance of claims 1-32. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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